

PFLEGEKOPF FÜR ELEKTRISCHE ZAHNPFLEGEGERÄTE

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Inventor(s):	ENGELHARDT LUDWIG [DE] +
Applicant(s):	ENGELHARDT LUDWIG [DE] +
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Care head for electric dental care devices the invention relates to a care head for electric dental care devices with vertical Schwingungssystemo the purpose is mainly that to make the advantages of these apparatuses also humans with sensitive gums without reservation zugänglich and to carry out thus a contribution the fight of the Parodontose.

With the principle of the vertical vibratory system, after which our electric toothbrushes predominantly work today, the bristles wipe whole inevitable search from the teeth over the edge of gum away. With already damaged gums is painful also with ground bristles and often leads to the annoying gum bleeding. That is one of the reasons, why the very important daily Zahnfleischmassage becomes so frequent either only unsatisfactorily performed or is omitted to whole.

The object is appropriate for the invention to reasons to prevent by a more careful Massage of the gums such damages either from the beginning or heal already present completely.

The object becomes dissolved by the fact that a care head becomes proposed, which corresponds both in the form and in the material and in its impact to this specific requirement in special Mae. In order to reach this object is it convenient to change over first from the vertical vibratory system with that single swinging brush head to a central swinging and thus complete balanced Schwingungssystem. By these Centring is void the disturbing vibration otherwise inevitable with the high frequencies.

The central swinging care head is round and cup shaped also in the center and vertical swinging axle located to the care-flat. It maintains smooth wiping and is thereby with its whole surface in contact with the teeth and/or. the gums.

With the vertical vibratory system this contact substantial is smaller and accordingly more aggressive, because those concave swinging bristles only tangential engage.

The round care-flat swing with the use in fastest change between Rechts-und left hand motion around the swinging axle. They wipe thereby in the plane of the care-flat and with the whole size the same arcuate into all directions. Become thus among other things not only cleaner wiped out and the edge of gum thereby on the most careful manner masses the vertical interdental spaces, but also the horizontal recesses at the edge of gum, in which the tartar settles likewise stronger. This enlargement of the care-flat, without reducing thereby the efficiency, might be the most substantial advantage of the central vibratory system.

A second possibility to arrange the care more careful offer to today for each purpose for the order standing india rubber reading tables cloths, so called elastomers and foams, e.g.

Polyurethane. The cleaning effect of the foams is good and can by more or less hardness be beeinflusst to a large extent.

By repeated pressing out in the water and final in the towel the elastic care head just as good can be kept germ-free and dried as a toothbrush.

The design and operation of the invention article as follows more near described become: On the swinging axis of the apparatus the replaceable round hochelastische care head becomes fitted, which is easy concave formed at its free end.

This concave surface is for the care the tooth elbow and the gums on the outside i.e. Lip side certain, while the opposite convex surface is benutzt to the care the inner tooth elbow.

The care head slides thereby with slight pressure of the hand smooth wiping guided over the Pflegeflächen away. The soft surface of the same penetrates thereby the pressure corresponding more or less deep into the tooth spaces and recesses at the Zahnfleisch edge.

Except that good cleaning, the developed care head here also the Zahnschmelz polishing characteristics.

The edge of gum is hardly stressed with this treatment through you soft wiping material and in addition by the care head continuous against the teeth depressed, so that the risk of a gradual loosening of the edge of gum is excluded.

The care is felt unusually pleasant, which is to be attributed partially also to the fact that the care head is so flexible and soft that it adapts to whole automatically the Kieferform.

It is not possibly simple itself thereby to verletzen⁴ EO you. one it also children without concern into the hand to give can.

The care technology on the outside jaws is whole unproblematic and can therefore to a large extent individual habits corresponding performed become. On the inside becomes directing care head. the aid of the tongue point recommended. In the range of the wisdom teeth vtrd the care head with chewing movements fold oneself up and one can penetrate thereby to the rear wisdom teeth.

One the embodiment, the new care head show Fig.1 in the longitudinal section and Fig.2 Möglichkeiten in the plan view. The high elastic front part 1 is existing actual known plug-on 2 fixed connected with the out fixed material. The group axle is however not more rigid, but can depending upon the requirements over that easy conical group beginning 5 easily up to approximately 45° be bent (see Fig.1) that is favourable to the achievement heavy accessible care places.

In addition the high elastic care head permits also a twist in its longitudinal axis. With the use affects itself anti-vibration, which likewise contributes to the indulgence of the gums and to the quiet course of the apparatus.

The free end of the care head for the care outer Zahn-bezw. Kieferflächen exhibits an easy concave care-flat 3. (See Fig.3) the convex rear 4 of the care head serves the care on the inside, (see Fig.4.) the thin care head front part 1 can completely of and the same high elastic material

(elastomers) with corresponding prepared surface consist. (See Fig.3 and 4.) In addition, it can become with a core 1 from for example very soft plastics with a support 6 from a material manufactured particularly contact-friendly for the gums. (see Fig.1.) for this to belong above all foam rubber (polyurethane), pulps, soft leather, even special bristles, which may sting on no case, are possibly. possible. The high flexibility of the care head may not go through the supports however to lost.

Finally is to be referred still to a third type of the care flat out guidance, both DOS maintaining head front part 1 a subject with a soft, stretchable coat out e.g. Foam rubber is covered. It sits by its own tension fixed, EO that gluing on is void. 9 is an advantage. if must become replaced after consumption only this part. For beson ders fastidious ones or in epidemic-endangered fields up to the Wegwerfprinzip the increased can become, with which the care materials are contained in the coat already and become only by the saliva liquefied.

The care head editions should be weichen, penetrate thus them with pressure in the tooth spaces and recesses and them. an high abrasion resistance exhibit it are without substantial importance if, as with every other dental care equipment also, at single inaccessible locations small remainders of Zannbelag should to stay. They can become late very simple with a Zahnstocher remote, which is o.ä. notwendig from caked-on meat fibers to the Beseitigung anyhow.

Finally it is pointed out that this care head without special time works also cosmetic, by it with the care of the front tooth surfaces the inside of the lips massed, which by more or less strong presses the same to a large extent affected can become, (see Fig.3.) whom red lips are particularly desired, which when these with the care-flat also outer additional mass 3. This cosmetic effect widened dental care-guesses/advises to a Mundpflegegerät.

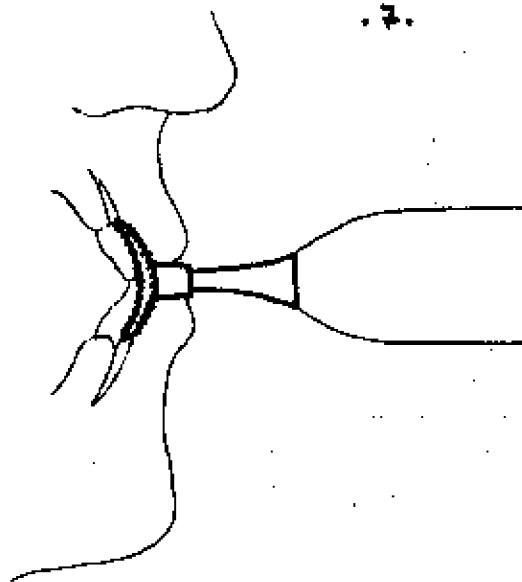
To the conclusion still on the fact attentively made are that a similar care head, however for an apparatus with axis of rotation, already in the Utility Model CM 73 18 607 v.30.8.73 described is.

The present requirement for protection refers, as already mentioned, to apparatuses, which work after the vertical vibratory system and supply with those the central designed round high elastic care head still better results. In all other respects the present requirement for protection goes beyond the oben erwähnten far.

Claims

1. Care head for electric dental care devices after the descending right vibratory system, characterized front part (1), existing by a out high elastic material (elastomers), which with a out fixed material (plastic) exist the plug-on (2) in a conical approach (5J fixed connected is, whereby the front part at its free end a round, concave care-flat (3) and on the rear a round, convex care-flat (4) exhibits, which is both zen table and in an angle from 90 to the swinging axle arranged, woduroW the Ptlegekopt after the central Schwingunge system works.
2. Care head according to claim 18 characterised in that the high resilience of the front part (1) a bending. the same up to approximately 450 in all directions and one the easy turn in the longitudinal axis permits.
3. Care head according to claim 1 u.2, daduren characterized. that the Pflegeilächen (3 u.4) is abraded, easy zottig or ancestor lich performed.
4. Care head according to claim 1 u.2, characterised in that the care-flat (3 u.4) of soft films (e.g. 4aus Polyure than) consist, which glued on up-vulcanized the care head (1) or are.
5. Care head according to claim 1 u.2, characterised in that the care-flat (3 u.4) by a stretchable, elastic
Coat (6) (out e.g. polyurethane) formed become, which is stretched a subject on the care head front part (1).

Fig. 3



× Fig. 1

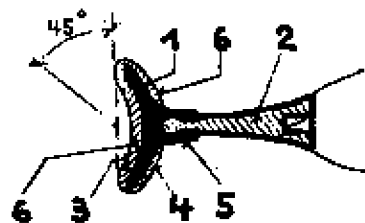
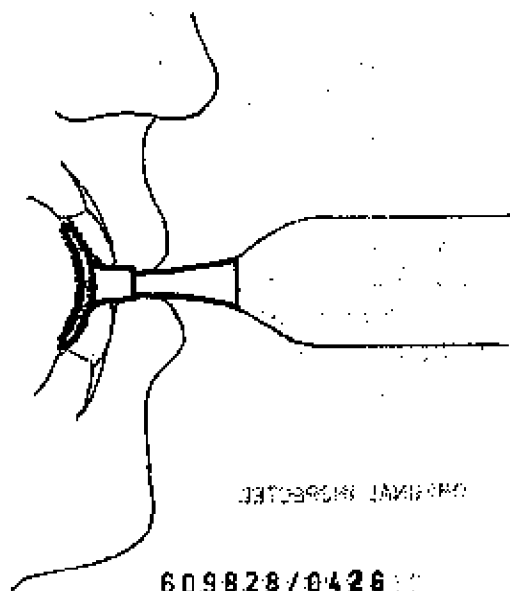


Fig. 2

Fig. 4



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